

REMARKS

Claims 1-10 and 26 are pending in the application. Claims 1-10 and 26 are rejected.

Claim 1 has been amended to include the 'hydrophobic monomer' limitation of claim 2. Claim 1 has also been amended to state that the copolymer is readily dispersible in the composition at any time during the processing. Support for this amendment is found at p. 4, lines 3-9 of the Specification as filed. Accordingly, no new matter is introduced by these amendments.

Reply to the Rejection of Claims 1-10 and 26 under 35 U.S.C. § 103(a)

The Examiner has rejected Claims 1-10 and 26 as being unpatentable over U.S. Patent No. 5,853,700 to Gormley *et al.* ("Gormley") in view of U.S. Patent No. 5,204,090 to Han ("Han"). For the following reasons, Applicants respectfully traverse the Examiner's rejection of claims 1-10 and 26 as being unpatentable over Gormley in view of Han.

Gormley discloses aerosol hair cosmetic compositions (*i.e.*, hairsprays) containing a water insoluble, polypropylene oxide-modified polydimethyl siloxane block copolymer, a film forming resin, solvent, propellant and water (Abstract). The film forming (hair cosmetic) resins of Gormley includes, for example, copolymers of methyl methacrylate, butyl acrylate and methacrylic acid (col. 4, lines 59-62) as one of several useful copolymers.

Gormley states that "[i]n formulation, some of these [film forming] polymers require neutralization with an alkaline reagent to effect solubility or dispersibility into the aqueous delivery system and subsequently . . . to effect removability **with water or with shampoo and water**" (col. 4, line 64 – col. 5, line 1; emphasis added). Gormley does not specify which polymers require neutralization, but states that the "level of neutralization" will typically range from 5 to 100% (col. 5, lines 4-5). The Examples illustrate the use of AMP Regular® as the base used for neutralization of the resin BALANCE™ 0/55.

Gormley does not state whether any of its film forming polymers are useful in water proofing. However, one skilled in the art reviewing the passage emphasized above understands that the film forming polymers of Gormley would not provide water proofing as they are formulated to be removable with water. Independent claim 1 of the present invention requires that the copolymer provide water proofing. Gormley does not teach or suggest acrylate

copolymers that provide water proofing. In this respect, although Gormley list acrylate copolymers as useful film formers, Gormley does not teach or suggest water-proofing acrylate copolymers as they would not be suitable for hairspray compositions that need to be removed with water. Further, Gormley does not teach acrylate copolymers that are water dispersible, particularly without neutralization. Finally, Gormley is solely directed towards hairsprays and therefore provides no motivation to one skilled in the art to consider its water removable film forming polymers for use as a water-proofing acrylate copolymer. Accordingly, Gormley alone cannot be said to render the presently claimed invention obvious.

Han is cited for its teaching of waterproof sun care compositions comprising carboxylated acrylic copolymers (col. 3, lines 20-50). Han specifically states that its acrylic copolymers "become water dispersible/soluble via neutralization" (col. 3, lines 26-28), but that it is preferred that they are not neutralized (col. 3, lines 41-45). The carboxylated acrylic copolymers described by Han are all octylacrylamide/acrylate copolymers available from Applicant under the tradenames DERMACRYL, AMPHOMER and VERSACRYL. DERMACRYL 79 (col. 3, lines 20-50) and are utilized in the Examples (see, *e.g.*, Examples 2-7). Claim 1 of the present application has been amended to incorporate the C8 limitation of claim 2. Han requires copolymers having an alkyl group of greater than or equal to C8 (octylacrylamide). Accordingly, Gormley even in combination with Han does not render unpatentable the presently claimed invention.

Further, like Gormley the carboxylated acrylic copolymers of Han require neutralization in order to be water soluble/dispersible (col. 3, lines 26-28). However, Han states that its water insoluble carboxylated acrylic copolymers preferably not be neutralized (col. 3, lines 41-42). This is consistent with its Examples 2-7 wherein the copolymer is solubilized in SD Alcohol 40 (denatured ethyl alcohol, with more than 53 weight % solvent used in each formulation). In contrast, acrylate copolymers according to the present invention are readily dispersible in the personal care composition at any point during processing (*e.g.*, in the water phase; see p. 1, lines 32-33 of the Specification) without the need for additional processing (*e.g.*, without neutralization or without solubilizing in a large amount of organic solvent). The present invention therefore not only avoids the use of a more expensive ethyl alcohol, but also allows for the formulation of low VOC compositions. As such, Gormley together with Han does not

provide one skilled in the art with the knowledge of how to obtain personal care compositions according to the presently claimed invention.


For at least these reasons, claims 1-10 and 26 are not rendered obvious by Gormley in view of Han. Withdrawal, therefore, of the rejection of claims 1-10 and 26 under 35 U.S.C. § 103(a) is respectfully requested.

It is believed that the above remarks and amendments overcome the Examiner's rejection of the claims. It is further believed that the application is now in condition for allowance, and such allowance is respectfully requested.

Respectfully submitted,

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